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Notice of Allowability	Application No.	Applicant(s)	
	10/709,043	HEMMING ET AL.	
	Examiner	Art Unit	
	Erica E. Cadugan	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of 8/7/06.
2. ☒ The allowed claim(s) is/are 1-45.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>8/7/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Drawing approval, 4 sheets</u> |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Ms. Gudrun Hockett on October 6, 2006.

The application has been amended as follows:

Claim 1 (Currently Amended). A machine for machining workpieces, the machine comprising:

at least one milling tool with an internal milling cutter having a milling opening surrounding a workpiece for milling an outer surface of a workpiece;

a first guide system including at least two parallel guide rails;

a second guide system parallel to, outside of, and spaced from the first guide system;

wherein the first guide system comprises at least one compound slide having a slide part, wherein the at least one compound slide is moveable in a longitudinal direction of the first guide system and wherein the slide part is moveable transversely to the longitudinal direction on linear axis X;

the at least one milling tool being secured on the slide part;

wherein the second guide system comprises a chuck for receiving a workpiece, the chuck having an axis of rotation about which a workpiece received in the chuck is rotatable;

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wherein machining of a workpiece received in the chuck by the at least one milling tool is carried out by axis interpolation of the linear axis X and the axis of rotation of the chuck.

Claim 8 (Currently Amended). The machine part according to claim 1, wherein the [first and] second guide [systems each have] has at least two parallel extending guide rails.

Claim 9 (Currently Amended). The machine according to claim 8, wherein the at least one compound slide has at least two guide shoes engaging the at least two guide rails of the first guide system.

Claim 10 (Currently Amended). The machine according to claim 8, wherein the at least one compound slide has two guide shoes positioned at a spacing to one another, respectively, for engaging each one of the guide rails of the first guide system.

Claim 24 (Currently Amended). The machine according to claim 1, further comprising at least one head stock having [a] the chuck.

Claim 37 (Currently Amended). The machine according to claim 1, wherein [the first guide system has two parallel guide rails and wherein] the first guide system has two of the at least one compound slide, said two of the at least one compound slide each being guided on said two parallel guide rails.

Claim 42 (Currently Amended). A machine for machining workpieces, the machine comprising:

at least one milling tool with an internal milling cutter having a milling opening surrounding a workpiece for milling an outer surface of a workpiece;

a first guide system including at least two parallel guide rails;

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a second guide system parallel to, outside of, and spaced apart from the first guide system;

wherein the first guide system comprises at least one compound slide having a slide part, wherein the at least one compound slide is moveable in a longitudinal direction of the first guide system and wherein the slide part is moveable transversely to the longitudinal direction;

the at least one milling tool being secured on the slide part;

a steady rest arranged on the second guide system, the steady rest having a drive for moving the steady rest on the second guide system.

2. The following is an examiner's statement of reasons for allowance:

EP 442542 ('542) was described in detail in the previous office action. Suffice it to say, even assuming *arguendo* (re claim 1) that EP '542 teaches or that it would have been obvious to have modified EP '542 such that machining is carried out "by axis interpolation of the linear axis X and the axis of rotation of the chuck", EP '542 does not teach that the "second guide system" on which the "workpiece chuck" or "steady rest" is supported is "outside of" the "first guide system" having at least "two parallel guide rails" on which the at least one milling tool is ultimately moveable as set forth in independent claims 1 and 42.

Furthermore, to so modify the teachings of EP '542 would be counter to the purpose of the invention of EP '542, see col. 8, lines 1-13 thereof, for example.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). See also MPEP Section 2143.01.

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Re the Yamade reference (U.S. Pat. No. 4,305,689) described in detail in the previous office action, Examiner notes that Yamade does not teach a first guide rail system “including at least two parallel guide rails” (on which guide system the at least one milling tool is ultimately moveable), and also a “second guide system parallel to, outside of, and spaced from the first guide system” (and which second guide system comprises the workpiece chuck re claim 1 or the steady rest re claim 42), nor is there any combinable teaching in the prior art of record that would reasonably and absent impermissible hindsight motivate one having ordinary skill in the art to so modify the teachings of Yamade.

Furthermore, re the Yonemoto reference (U.S. Pat. No. 5,313,694) described in detail in the previous office action, Examiner agrees with Applicant’s assertion that Yonemoto does not teach the internal milling cutter “having a milling opening surrounding a workpiece for milling an outer surface of a workpiece” as now set forth in independent claims 1, 42, and 44.

Re independent claims 1 and 42, U.S. Pat. No. 6,098,258 to Shimomura teaches a machining device for broaching a rotary workpiece, wherein the arrangement of first and second guide systems, tool supports, and workpiece supports is similar to that of the present invention (see Figures 1-2, for example, noting the “first guide system” 3, the second guide system 5, and transverse guide rails 2b on which broach heads 2c are movable. However, firstly, the tools taught by Shimomura are not “milling” tools at all, but are instead broaching tools 10. Secondly, the tools taught by Shimomura do not have an “opening surrounding a workpiece for” performing any sort of machining operation on “an outer surface of the workpiece”, noting that the broaching tools taught by Shimomura do not have any openings surrounding the workpiece 12 (clamped by chucks 17).

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Additionally, to so modify the teachings of Shimomura would preclude Shimomura's device from functioning as intended, i.e., from broaching a workpiece. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). See also MPEP Section 2143.01. Also, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). See also MPEP section 2143.01.

Furthermore, there is no combinable teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of Shimomura, and thus, for at least the foregoing reasoning, Shimomura does not render obvious the present invention as set forth in the independent claims.

Additionally, regarding independent claim 44, Examiner agrees with Applicant's assertion that the Blank reference (U.S. Pat. No. 5,807,043) does not teach the "energy conduits arranged underneath" the "telescoping guide path covers" that are "for protecting the first and second guide systems" as set forth in independent claim 44.

The aforescribed prior art being representative examples of the closest prior art of record to the present invention as set forth in the present claims, for at least the foregoing reasoning, the prior art of record neither anticipates nor renders obvious the present invention as set forth in independent claims 1, 42, and 44.


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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Erica E Cadugan
Primary Examiner
Art Unit 3722

eec
October 10, 2006